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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/078,488

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Nobuyuki Nemoto

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21171

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02/14/2005

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EXAMINER

BELLO, AGUSTIN

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,488

Applicant(s)

NEMOTO ET AL.

Examiner

Agustin Bello

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 2 is not clear how a target value is "set to" the feedback circuit. For the purpose of this office action the examiner assumes that the applicant intended to claim that the target value is "sent to" the feedback circuit.

3. Claim 4 is generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ford (U.S. Patent No. 6,392,769).

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Regarding claims 1 and 6, Ford teaches a plurality of variable attenuators (reference numeral 402 in Figure 4) for adjusting optical power levels of optical signal components of individual wavelengths demultiplexed from the WDM optical signal; a plurality of output optical level detecting units (reference numeral 405 in Figure 4) detecting the output optical levels of the plurality of variable attenuators; and a feed-back circuit (reference numeral 409 in Figure 4) for controlling adjustments of the optical attenuation amounts of the plurality of variable attenuators, wherein optical signal components of individual wavelengths whose power levels have been adjusted by the plurality of variable attenuators are multiplexed (e.g. via reference numeral 404 in Figure 4) and thereby a WDM optical signal is generated and transmitted..

Regarding claims 2 and 7, Ford teaches that a target value is sent to the feed-back circuit (reference numeral 409 in Figure 4) the target value representing the optical power level of each of the optical signal components of individual wavelengths (e.g. the power level measurement performed by the detectors reference numeral 405 in Figure 4).

Regarding claims 3 and 8, Ford teaches that when an optical signal component of a wavelength of the WDM optical signal is disconnected (e.g. dropped according to the “add/drop reconfiguration” described in column 4 lines 20-31), the feed-back circuit sets the attenuation amount of a variable attenuator assigned to the optical signal component to a predetermined value (column 2 lines 29-35).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being obvious over Ford in view of Minamimoto (U.S. Patent No. 6,839,518).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claims 4 and 9, Ford teaches setting a variable attenuator to a predetermined value when the signal is dropped, but differs from the claimed invention in that Ford fails to specifically teach that the predetermined value is low enough so that upon addition of a new signal to the system, the abrupt input does not destroy a WDM transmitting apparatus

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downstream from the variable attenuator. However, one skilled in the art would clearly have recognized that in adding new signals and dropping old signals, adjustments to the newly added signals would be necessary to carefully optimize the system (column 4 lines 20-31 of Ford).

Furthermore, Minamimoto discloses setting a variable attenuator to a predetermined value to low enough so that upon addition of a new signal to the system, the abrupt input does not destroy a WDM transmitting apparatus downstream from the variable attenuator (column 5 lines 18-29).

One skilled in the art would have been motivated to set a variable attenuator to a predetermined low value as disclosed by Minamimoto in order to ensure that the signal input to the downstream element is within that element's dynamic range (column 5 lines 18-29 of Minamimoto).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to set a variable attenuator to a predetermined low value in the device of Ford as disclosed by Minamimoto.

Regarding claims 5 and 10, the combination of Ford and Minamimoto teaches the feed-back circuit maximizes the attenuation amount of a variable attenuator assigned to an optical signal component of an unused wavelength (e.g. the dropped wavelength in Ford; the ability of the system of Minamimoto to ensure the signal input to the downstream element is within that element's dynamic range). Being that the feed-back circuit of Ford is capable of the making any adjustment necessary to a variable attenuator assigned to an optical signal component, it is clear that it is capable of maximizes the attenuation amount of a variable attenuator assigned to an optical signal component of an unused wavelength. One skilled in the art would have been motivated to do so in order to ensure optimization of the system and to ensure that the signal input to the downstream element is within that element's dynamic range. Therefore, it would

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have been obvious to one skilled in the art at the time the invention was made to apply the feedback circuit of either Ford or Minamimoto in order to maximize the attenuation amount of a variable attenuator assigned to an optical signal component of an unused wavelength.

***Conclusion***


8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim discloses relevant art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB

  
**AGUSTIN BELLO**  
**PATENT EXAMINER**  
2/5/05